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From: Commander, Western Division, Naval Facilities Engineering Command
To: Distribution

Subj: REMEDIAL INVESTIGATION/FEASIBILITY STUDY (RI/FS) FOR NAVAL STATION TREASURE ISLAND, SAN FRANCISCO

Encl: (1) Navy Response to DTSC Comments on the Phase I RI Data Quality Summary Report (DQSR)
(2) Navy Response to RWQCB Comments on the Phase I RI Data Quality Summary Report (DQSR)

1. Enclosures (1) and (2) are provided for your information. A revised DQSR will not be submitted at this time. The DQSR has been incorporated into the text and appendices of the remedial investigation (RI) report currently under review by the Navy.

2. Thank you for your guidance and involvement in this project. For further information, please contact Mr. Ernesto M. Galang, Code T4E2EG, at (415) 244-2560.

Original signed by:

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By direction

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DEPARTMENT OF TOXIC SUBSTANCES CONTROL
RESPONSE TO COMMENTS ON THE DATA QUALITY SUMMARY REPORT
FOR THE REMEDIAL INVESTIGATION PHASE I
NAVAL STATION TREASURE ISLAND

Comment No. 1: Page 1, Section 1.0 Introduction

This report presents the chemical and quality control data gathered during the Phase I remedial investigation (RI) field effort and provides recommendations for work to be done during the Phase II field effort. This report does not, however, support Navy's conclusions for No Further Action at several of the RI sites. Because this document is critical in determining the need and scope for the RI Phase II, this should have been a third objective of the data quality summary report (DQSR). The DQSR provides a good description of the chemical and quality control data for the Phase I RI. The DQSR, however, is inadequate in assessing the useability of the data for characterizing the contamination at RI sites and conducting risk assessments. Therefore, the recommendations given in Section 6 can not be fully assessed. A complete review of the Phase II field work will be provided at the time the draft work plan is submitted.

Response: Information to support the Navy's conclusions for each RI site (no further action, additional RI investigation, or further consideration during the feasibility study) is contained in the RI report and the Phase II work plan for Naval Station Treasure Island (NAVSTA TI). The RI report contains a complete characterization of contamination at each RI site and summaries of the human health and ecological assessments which should be adequate to support the recommendations drawn in the DQSR. With the exception of rejected (R-qualified) data, all data collected during the RI was deemed acceptable and usable for site characterization and risk assessment purposes.

Comment No. 2: Page 1, Section 1.0 Introduction

An acronym should be spelled out completely the first time it is used in a document. PARCC is used on page 1, however, it is not spelled out until page 3.

Response: PARCC is now spelled out on page 1 of the DQSR which will be resubmitted as Appendix E of the RI report. In addition, an abbreviation and acronym list has been added for convenience.

Comment No. 3: Page 1, Section 1.0 Introduction

The introduction states that Phase I analytical results are included in the appendix of the report. The data tables provided to DTSC do not include a title page, identifying them as an appendix, nor of a date of submittal.

ENCLOSURE (1)

Response: The data tables will include a title page, with date, for future submittals.

Comment No. 4: Page 5, Section 2.1 Holding Times

Were any of the samples that exceeded their required holding times resampled?

Response: The semivolatile samples that were analyzed outside of holding time requirements due to laboratory error were resampled. However, other samples that required reanalysis after holding time expiration due to matrix problems were not resampled. In general, sample results with minor holding time problems, although J-qualified, are still considered usable.

Comment No. 5: Page 8, last paragraph, Section 2.4 Field and Laboratory Blanks

Professional judgement was used as the basis for qualifying sample results less than five times the CRQL as "U1." Is this professional latitude discussed in any guidance documents or in Treasure Island's QAPjP?

Response: The "National Functional Guidelines for Organic Data Review" (EPA 1990, pp. 19, 56) states that "there may be instances where little or no contamination was present in the associated blanks, but qualification of the sample is deemed necessary. If the reviewer determines that the contamination is from a source other than the sample he/she should qualify the data."

Comment No. 6: Page 9, Section 2.5 Accuracy

What does the acronym LCS stand for?

Response: LCS stands for laboratory control sample as defined on page 4 of the DQSR. An abbreviation and acronym list has been included in the revised DQSR which will be resubmitted as Appendix E of the RI report.

Comment No. 7: Page 10, Section 2.6 Precision - Field and Laboratory

Please reference the source of the criteria listed in this section.

Response: The source of the laboratory duplicate precision criteria listed in Section 2.6 is the "Laboratory Data Validation Functional Guidelines for Evaluating Inorganic Analyses" (EPA 1988).

Comment No. 8: Page 11, Section 2.6 Precision - Field and Laboratory

Field duplicates were not used as a measurement of individual sample precision. Therefore, the chemical data for the project were not qualified on the basis of field duplicate precision. Was this deviation from the EPA guidance included in the QAPjP?

Response: This is not a deviation from EPA guidance. The data validation functional guidelines state that the action to be taken for field duplicates include identifying field duplicate samples and "[comparing] the results for each sample and [calculating] the relative percent difference (RPD), if appropriate." No other action, such as qualification of the data is required. In addition, the quality assurance project plan (QAPjP) says that precision will be assessed by conducting separate analyses of duplicate samples and calculating the RPD and comparing with the precision goals established but does not require qualification of individual samples. The requirements of the functional guidelines and the QAPjP were followed in evaluating data for the DQSR.

Comment No. 9: Page 12, Section 2.7 Analytical/Matrix Performance

Please reference the source of the following statement:

"Internal standard area counts in the sample must be within a range of 50 to 200 percent, and the internal standard retention time must not vary by more than $\pm$30 seconds."

Response: The "National Functional Guideline for Organic Data Review" (EPA 1990, pp. 30, 66) is the source of this criteria.

Comment No. 10: Page 12, Section 2.7 Analytical/Matrix Performance

Please spell out ICPAA the first time it is used in this document.

Response: Inductively coupled plasma atomic absorption (ICPAA) is spelled out on page 4 of the DQSR. An abbreviation and acronym list has been included in the DQSR which will be resubmitted as Appendix E of the RI report.

Comment No. 11: Page 12, Section 2.8 Results Below the CRQL

The DQSR uses CRDL; however, the QAPjP lists Practical Quantitation Limit (PQL). The QAPjP must be updated for the Phase II RI.

Response: The difference between the cntract required detection limit (CRDL) and the practical quantitation limit (PQL) is in terminology only. The CRDLs used for the actual analyses are equal to the PQLs listed in the QAPjP. The QAPjP will be updated to reflect this change for the Phase II work.

Comment No. 12: Page 17, Section 4.1 Accuracy, last bullet item

Please elaborate on the other "QC" data which indicated that the methods provided data of good quality.

Response: All QC criteria except matrix spike and laboratory control samples were evaluated. The QC criteria for holding times, blanks, duplicates, and instrument calibrations were evaluated for the methods listed.

Comment No. 13: Page 18, Section 4.3 Completeness

Although the data exceeded the Treasure Island QAPjP completeness goal, the goal stated in the DQSR is incorrect. The QAPjP set a 95% goal for laboratory samples and 90% for field samples.

Response: This error has been corrected in the text of the DQSR which will be resubmitted as Appendix E of the RI report.

Comment No. 14: Page 18, Section 4.3 Completeness

Does this 99% completeness include the samples that did not meet the holding times and required resampling.

Response: Since the resampled data were acceptable for use, they are included in the 99 percent completeness value.

Comment No. 15: Page 20, Section 6.0 PHASE II RECOMMENDATIONS

"Other RI sites do not require additional work." This statement should be supported.

Response: The support for this statement is included in the RI report for NAVSTA TI.

Comment No. 16: Page 20, Section 6.0 PHASE II RECOMMENDATIONS

The QAPjP should also be updated as part of the Phase II sampling and analysis plans.

Response: The QAPjP and the health and safety plan will be updated as needed for the Phase II RI work.

Comment No. 17: Page 20, Section 6.1 Site 1 (Medical Clinic)

How was the background concentration of silver calculated for Treasure Island?

Response: Ambient (background) concentrations for silver, lead, and other metals were determined as described in the RI report appendix entitled "Inorganic Constituents in Soil: Results of Comparison Between NAVSTA TI Levels and Ambient Levels."

Comment No. 18: Page 20, Section 6.2 Site 6 (Fire Training School)

After completion of the Phase II field work the extent of soil contamination should be known. The proposed addition of three down gradient monitoring wells will not aid in defining the extent of soil contamination.

Response: The extent of soil contamination is already well characterized at Site 6. The additional monitoring wells are proposed to better determine the extent of groundwater contamination.

Comment No. 19: Page 21, Section 6.3 Site 9 (Foundry)

How was the background concentration of lead calculated for Treasure Island?

Response: Ambient (background) concentrations for silver, lead and other metals were determined as described in the RI report appendix entitled "Inorganic Constituents in Soil: Results of Comparison Between NAVSTA TI Levels and Ambient Levels."

Comment No. 20: Page 21, Section 6.3 Site 9 (Foundry)

The groundwater at Site 9 should be resampled to confirm the presence of butylbenzylphthalate.

Response: The request to sample the groundwater at Site 9 for butylbenzylphthalate seems unreasonable without more explanation. Butylbenzylphthalate was not detected in the soil samples collected at the site. No groundwater sampling has previously been conducted at this site.

Comment No. 21: Page 21, Section 6.5 Site 11 (Yerba Buena Island Landfill)

The Phase II investigation should determine the source of the diesel found in the landfill. The Navy should consider sampling below the beach at Site 11 to determine if contamination has migrated offshore.

Response: The recommended locations for soil sampling at Site 11 will be considered during preparation of the work plan.

Comment No. 22: Page 21, Section 6.5 Site 17 (Tanks 103 and 104)

Installing only one well within the containment of Tank 104 will result in three wells in approximately a line (with 24-MW03 and 17-MW01). A groundwater monitoring well should also be installed near [Tank] 103 in order to sample the groundwater and establish the groundwater gradient at the site.

Response: The installation of an additional monitoring well near Tank 103 will be considered during preparation of the work plan.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
RESPONSE TO COMMENTS ON THE DATA QUALITY SUMMARY REPORT
FOR THE REMEDIAL INVESTIGATION PHASE I
NAVAL STATION TREASURE ISLAND

General Comments

Comment No. 1: There are no background levels for Treasure Island. Fill material does not have background. Background values are only relevant for naturally occurring soils.

The SFRWQCB staff's understanding is that the values taken as "background" were from USGS values. There are two reasons why this comparison is deficient (1) USGS is just for naturally occurring soils, fill is not naturally occurring; (2) USGS values are not site specific.

If it is necessary to compare levels found at Treasure Island, please use ambient levels, the term background is both confusing and misleading. Ambient levels should be established through a statistical analysis of the soil data at the base. The data gathered for such a statistical analysis must be taken from areas not impacted by base operations.

Response: The initial use of U. S. Geological Survey (USGS) values as ambient concentrations of metals in soil was accepted by the regulators during the December 17, 1992 monthly progress meeting. The ambient concentrations are used for comparison purposes only. Soil cleanup goals will be based on human health and ecological risk assessments.

Comment No. 2: The data qualification tables presented in this document are vague. For instance, Table 3, footnotes (a) and (b); why were the samples footnoted under (b) resampled because they were extracted outside the 14 days holding time, but the samples footnoted under (a) were not. In addition, were the resampled analytes used in calculating the percentages for "J3" estimated data and rejected data; if so, the percentages are misleading.

Response: An explanation of why selected samples were resampled has been added to the DQSR which will be resubmitted as Appendix E of the RI report. The original samples that were analyzed outside of holding times are included in the percentage of rejected samples. The results of the resampled samples were considered acceptable.

ENCLOSURE (2)

Comment No. 3: A tidal influence study is critical to understanding groundwater flow and contaminant migration at Treasure Island and Yerba Buena Island (YBI). A tidal influence study at YBI's landfill would be particularly important to determine if the landfill would have any potential impact on the water quality of the Bay.

It is the SFRWQCB staff's understanding that the groundwater at Treasure Island and Yerba Buena Island is tidally influenced, unless proven otherwise.

Response: Although a previous study by McCreary-Koretsky Engineers in 1965 showed little tidal influence (0.3 feet), the Navy is planning to do a tidal influence study at Treasure Island and Yerba Buena Island as part of the Phase II investigation.

Comment No. 4: The SFRWQCB will reserve site specific comments until the Phase II work plan is submitted.

Response: No response necessary.

Comment No. 5: J-qualified data values are accepted by the SFRWQCB for screening purposes only. The J-qualified data will not be accepted when determining vertical or horizontal extent of contamination.

Response: EPA provides guidelines on the usability of validated data in the document "Risk Assessment Guidance for Superfund" (RAGS) Volume I (EPA 1989). A clear distinction is made between using data with laboratory qualifiers (RAGS Exhibit 5-4) and using data with validation qualifiers (RAGS Exhibit 5-5). Exhibit 5-5 clearly states that data qualified as "J" based on a data validation report should be used in quantitative risk assessments. Only rejected data (qualified as "R") is considered unusable for risk assessment purposes. No R-qualified data were used in the NAVSTA TI risk assessment or for determination of the nature and extent of contamination. If the data are of acceptable quality for use in risk assessments, then the data should be usable in determining the vertical and horizontal extent of contamination. For consistency, the same data set should be used for determining risk as for determining the extent of contamination.

Comment No. 6: The SFRWQCB requires during purging and subsequent groundwater monitoring that conductivity, pH, temperature, and turbidity be measured.

Response: The results of these measurements (conductivity, pH, temperature, and turbidity) will be included as an appendix to the RI report. These water quality measurements will also be performed during future development and purging of monitoring wells.

Specific Comments

Comment No. 7: Page 20, 3rd Paragraph

The reference made to a Harding Lawson Associates, should be updated to show the date of the document. A "?" is unacceptable.

Response: The date for the Harding Lawson Associates reference is 1987 and has been corrected in the text of the DQSR which will be resubmitted as Appendix E of the RI report.

Comment No. 8: Page 20, 2nd paragraph

No background levels exists for silver at Treasure Island, please modify text to reflect that. See general comment 1.

Response: Ambient (background) concentrations for silver, lead and other metals were determined as described in the RI report appendix entitled "Inorganic Constituents in Soil: Results of Comparison Between NAVSTA TI Levels and Ambient Levels."

Comment No. 9: Page 21, 1st paragraph

No background levels exists for lead at Treasure Island, please modify text to reflect that. See general comment 1.

Response: Ambient (background) concentrations for silver, lead and other metals were determined as described in the RI report appendix entitled "Inorganic Constituents in Soil: Results of Comparison Between NAVSTA TI Levels and Ambient Levels."

Comment No. 10: Page 21, 3rd paragraph:

The word "fill" to describe the contents of the landfill is confusing, change "fill" to "waste." At Site 11, five soil borings are proposed to determine the waste boundaries and thickness; yet in the document the soil samples are only proposed to 9.5 feet. To determine thickness of the waste, it may be necessary to go deeper.

Response: The word "waste" will be used to describe the landfill contents. The Phase I investigations at Site 11 found waste materials no deeper than 8 feet below ground surface and it is not expected to be found deeper in additional borings. However, the borings will be drilled to the bottom of the waste material even if it is deeper than 9.5 feet.

Comment No. 11: Page 21, 3rd paragraph:

Why was the east end of the site selected as the area for the monitoring well?

Response: The exact location of the additional monitoring well at Site 11 has not been determined, but will be specified in the Phase II work plan.

Comment No. 12: Page 22, 2nd paragraph:

Data measurements gathered from the clusters should include water levels, time of sample, and whether it was low tide or high tide.

Response: The purpose of this comment is somewhat unclear. It is standard practice during groundwater sample collection to record water levels and time of sampling. The additional item of tidal measurements can be determined based on date and time of sampling.

Comment No. 13: Page 23, 2nd paragraph:

Will a soil gas survey work in wet fill? How many points will be selected for the soil gas survey in the 400 by 400 foot area proposed.

Response: A soil gas survey will work in wet soil, but not below the water table. However, if the groundwater is contaminated, the soil gas should be able to detect it because of volatilization of potential contaminants from groundwater. The number of locations for the soil gas survey will be determined in the Phase II work plan.